



## Collecting a Drinking Water Monitoring Program MICROBIOLOGY Sample

### Sample Container


- Use a sterile leak-proof 250mL PET container with sufficient sodium thiosulphate to neutralise residual chlorine in the water sample.

### Label

- Use a NSW Health **barcoded** label for the correct supply system, current year and sample type.

Sample Type	Label Colour	Barcode Starts With
Allocated	White	1
Repeat	Pink	6
Additional	Blue	8

- Use an indelible pen to record the **site code, time and date** of collection.



### Drinking Water Monitoring Program 2019 Microbiology

Water Utility name \_\_\_\_\_

Supply system name XX01

Sample Site:          

Time:           AM / PM

Date:               

Comments: \_\_\_\_\_

**Field Results**

Is the system chlorinated? Y / N


Temperature

pH:

Turbidity:

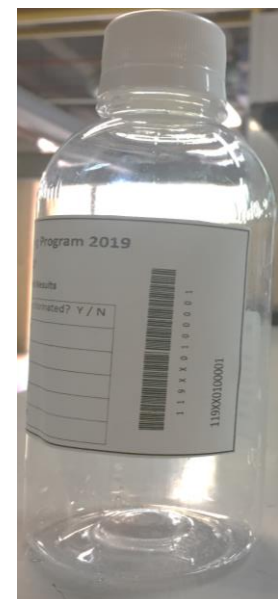
Free chlorine:

Total chlorine:



1 1 9 X X 0 1 0 0 0 0 1

119XX0100001



- Place the label evenly around the sample bottle (not on the lid) so that the entire barcode can be scanned at the laboratory.

### Preparing the Tap

- Ensure the tap is clean, free of attachments and is in good working order.
- Flush** the water for 2 to 3 minutes.
- Disinfect** the tap prior to taking the sample, using one of the following methods:
  - Disinfection by flaming:** For metal taps without plastic fittings or other heat-sensitive components, flame the tap, starting at the nozzle and working back to the body of the tap until the water in the nozzle boils. After flaming, run the water to waste until cool before taking the sample.
  - Disinfection where flaming is not appropriate:** Dip the mouth of the tap for 2 to 3 minutes in a beaker containing sodium hypochlorite solution (approximately 1g/L available chlorine), ethanol (70%) or isopropanol (70%). Alternatively a swab or wash bottle or similar may be used to disinfect the tap on the outside and as much of the inside as possible. Subsequently, run the water just long enough to ensure that the sample has no residual disinfectant effect.

### Precautions When Taking the Sample

- Take care not to contaminate the sample during collection.
- Do not rinse** the container before taking the sample.
- Do not** carry out **field tests** from this bottle.
- If taking both a microbiology and chemistry sample, take the microbiology sample first.

### Collecting the Sample

- Reduce the water flow to prevent splashing but keep the tap running.
- Remove the screw cap and hold it without touching the inside of the cap while taking the sample.
- Fill the bottle only to just above the shoulder. **Do not fill all the way to the top** or let the bottle overflow. A minimum volume of **200 mL** is required.
- Carefully replace the cap.

### Field results

- Take a **second** sample at the same time as the Microbiology sample is collected to carry out field tests (temperature, pH, turbidity, free chlorine and total chlorine).
- Record the results on the Microbiology label.

Drinking Water Monitoring Program 2019	
Microbiology	
Water Utility name	Field Results
Supply system name XX01	Is the system chlorinated? <input checked="" type="radio"/> Y <input type="radio"/> N
Sample Site: <u>0 0 1</u>	Temperature: <u>23.6 °C</u>
Time: <u>11 15</u> <input checked="" type="radio"/> AM <input type="radio"/> PM	pH: <u>7.8</u>
Date: <u>5/1/19</u>	Turbidity: <u>2.3 NTU</u>
Comments:	Free chlorine: <u>0.41 mg/L</u>
	Total chlorine: <u>0.55 mg/L</u>

### Transporting Samples to the Laboratory

- Pack the sample into an insulated container with sufficient freezer bricks to keep the sample cool ( $5\pm 3^{\circ}\text{C}$ ) during transportation. Do not freeze the samples.
- Attach a copy of the FASS address label to the insulated container.
- Send/deliver the samples to FASS so that testing may begin within 24 hours of collection.

URGENT WATER SAMPLES		
Delivery Address		
Forensic & Analytical Science Service 480 Weeroona Road LIDCOMBE NSW 2141		
Laboratory	<input type="checkbox"/> Microbiology	<input type="checkbox"/> Chemistry / Organic Chemistry
After hours telephone number	0419 215 490	0413 984 105
<b>FRAGILE</b>		

### For more information:

AS 2031:2012 – Water quality - Sampling for microbiological analysis (ISO 19458:2006, MOD)

AS/NZS 5667.1:1998 (reconfirmed 2016) Water quality – Sampling. Part 1: Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples

AS/NZS 5667.5:1998 (reconfirmed 2016) Water quality – Sampling. Part 5: Guidance on sampling of drinking water and water used for food and beverage processing

Australian Drinking Water Guidelines Version 3.3 (2011); Information Sheet 2.1: Sampling Information – handling requirements and preservation.